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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/940,359

08/27/2001

Jeffrey S. Weaver

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4997

7590

04/15/2005

HEWLETT-PACKARD COMPANY

Intellectual Property Administration

P.O. Box 272400

Fort Collins, CO 80527-2400

EXAMINER

EMDADI, KAMRAN

ART UNIT

PAPER NUMBER

2667

DATE MAILED: 04/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/940,359	WEAVER, JEFFREY S.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Kamran Emdadi	2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-25 and 39 is/are allowed.
- 6) ☒ Claim(s) 1,2,5-20,26,27 and 30-38 is/are rejected.
- 7) ☒ Claim(s) 3,4,28 and 29 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Claim Objections***

Claim 9 is objected to because of the following informalities: The word "patent" is understood by the Examiner as an error, and is believed to have been intended to be "packet". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 10-11 and 32-33 are rejected under 35 U.S.C. 112, first paragraph, because the specification does not reasonably provide enablement for "a maximum transmission length." Further, the Examiner does not understand what the "maximum transmission length" represents, that is what the length is representing. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to understand the invention commensurate in scope with these claims 10-11 and 32-33.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 33 recites the limitation "the maximum transmission length". There is insufficient antecedent basis for this limitation in the claim and in its respective parenting claim 26.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 9, 12-15, 18-19, 26-27 and 37-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Goldberg et al. (U.S. Patent No. 6,389,038).

Regarding claims 1 and 37-38, Goldberg teaches a voice or IP (VoIP) bandwidth utilization scheme including combining commonly addressable packets together into superpackets thus reducing the amount of header information transferred to improve bandwidth efficiency (see Abstract). The system further includes a buffering mechanism that operates to collect the voice data packets and combines them via a MUX 230, before forwarding them via gateway 200A (see column 3, lines 41-59). The packets are consolidated and sent, for example, as a superpacket from a first router 210a to a next hop router 210c and again to router 210b (see figure 3).

Regarding claims 2 and 27, if the packets received are superpackets then a disassembling process is performed (see column 7, lines 23-25).

Regarding claim 9, identifying a first packet includes determining a next hop address (see column 8, lines 5-17).

Regarding claim 12, the network traffic device is a router (see figures 2-4).

Regarding claim 13, joining the packets in an end-to-end manner (see figure 6b).

Regarding claim 14, the packets are voice packets (see Abstract).

Regarding claim 15, the voice packets are identified at a gateway and tagged as voice packets (see column 8, lines 5-17).

Regarding claim 18, in addition to the rejection noted above with respect to claim 1, Goldberg teaches using two different types of packets (voice and/or non-voice packets) and checking the tag information of the packets before combining them into a superpacket for transmission (see column 8, lines 5-20).

Regarding claim 19, performing the tag check before buffering the packet for transmission (see column 8, lines 11-17).

Regarding claim 26, in addition to the rejection noted above with respect to claim 1, Goldberg teaches using a memory to buffer packets (see column 7, lines 15-20), a processor (see column 8, lines 45-47), and ports for sending and receiving packets (see column 7, lines 52-60).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-8, 16-17, 20, 30-31 and 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldberg in view of Iwata et al. (U.S. Patent Application No. 2004/0114516).

Goldberg teaches all of the above described features, but is silent regarding forwarding a local next-hop addressed packet without consolidation, sorting packets by destination in a plurality of separate buffers, and including priority indicators in the sorting process. Iwata discloses a packet scheduling apparatus that includes high and low priority packet distribution and corresponding separate buffers (see Abstract and figure 3). Additionally, a flag and a destination address used in the header of the packet (see figure 6), where the packets having a low priority are identified by information in the header of the packet (see [0032]).

Evidence to combine these two references is disclosed in the Background portions of their respective specifications. For instance, Iwata discloses the desire to have packets of varying transmission speeds operating in unison without influencing the performance of the data communications (see [0017]). Similarly, Goldberg discloses combining voice and data packets into a common packet structure to avoid unnecessary delays associated with redundant header information (see column 2, lines 1-15). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Goldberg and Iwata to arrive at the features disclosed in claims 5-8, 16-17, 20, 30-31 and 34-36.

***Allowable Subject Matter***

Claims 21-25 and 39 are allowed.

The following is an examiner's statement of reasons for allowance: regarding claim 21, nowhere in the prior art references taken individually or in combination, teaches comparing the size of a first data packet to a predetermined maximum transmission unit and if the size of the first data packet is smaller than the maximum transmission unit, then identifying a second data packet from the plurality of stored data packets with the same next-hop address as the selected data packet, and adding the first and second data packet to find a total size and comparing the total size to the maximum transmission unit and if the total size is less than or equal to the maximum transmission unit, consolidating the selected data packet and the second data packet to form a consolidated packet.

Additionally, claims 22-25 are allowable by virtue of their dependency on claim 21, and claim 39 is allowable because it is substantially similar to claim 21.

Claims 3-4 and 28-29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 3, nowhere in the prior art teaches the features recited in claim 3 inclusive of the features recited in claims 1-2. More specifically, the best reference Goldberg et al. (U.S. Patent No. 6,389,038) does not teach: each data packet having

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and actual length and including a header with a field giving a total length value for the data packet, wherein deconsolidating any consolidated packets includes extracting the total length value from the header, comparing the total length value to the actual length, and if the actual length is longer than the total length value, removing a segment from the front of the data packet equal in length to the total length value. Claim 4 would also be allowable by virtue of its dependency on claim 3. Claims 28 would also be allowable because it is substantially similar to claim 3, and claim 29 because it depends on claim 28.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kamran Emdadi whose telephone number is 571-272-6047. The examiner can normally be reached M-F between the hours of 7am-5pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kamran Emdadi

April 14, 2005

  
CHI PHAM  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800 4/14/05